

WHAT WE CLAIM IS:

- 1 1. A controlled plumbing fixture, comprising:
2 (a) a plumbing fixture;
3 (b) electromechanical valve means
4 operably associated with said fixture for regulating the
5 flow of water thereto;
6 (c) control means operably associated
7 with said valve means for controlling operation thereof;
8 and
9 (d) a self-calibrating push button
10 operably associated with said control means for supplying
11 a demand signal thereto and for thereby causing said
12 control means to supply a control signal to said valve
13 means for causing operation thereof.
- 1 2. The fixture of claim 1, wherein:
2 (a) said fixture is one of a toilet, sink
3 and shower.
- 1 3. The fixture of claim 1, wherein the push
2 button comprises:
3 (a) a movable plunger;
4 (b) biasing means operably associated
5 with said plunger for urging said plunger toward a first
6 position; and

7 (c) sensor means operably associated with
8 said plunger for generating the demand signal when said
9 plunger is moved to a second position remote from said
10 first position.

1 4. The fixture of claim 3, wherein:

2 (a) means are operably associated with
3 said sensor means for permitting said sensor means to be
4 moved from an intermediate position to said second
5 position and for maintaining said sensor means in said
6 second position.

1 5. The fixture of claim 3, wherein:

2 (a) said permitting and maintaining means
3 includes an elastomeric member.

1 6. The fixture of claim 5, wherein:

2 (a) said member is frustoconical, and the
3 frustum thereof is spaced from said second position.

1 7. The fixture of claim 3, wherein:

2 (a) said biasing means includes a coil
3 spring; and

4 (b) said spring surrounds at least a
5 portion of said sensor means.

1 8. The fixture of claim 7, wherein:

2 (a) said plunger includes a flange
3 engaged with said spring.

1 9. The fixture of claim 3, wherein:

2 (a) said sensor means is one of an
3 inductive sensor and a magnetic reed switch.

1 10. A controlled plumbing fixture, comprising:

2 (a) a plumbing fixture;

3 (b) an electromechanically operated valve
4 operably associated with said fixture for regulating the
5 flow of water thereto;

6 (c) a push button plunger operably
7 associated with said fixture for being operated by a user
8 of said fixture;

9 (d) biasing means operably associated
10 with said plunger for urging said plunger in a first
11 direction toward the user;

12 (e) movable sensor means spaced from said
13 plunger for generating a demand signal upon a user moving
14 said plunger into operative association with said sensor
15 means; and

16 (f) control means operably associated
17 with said sensor means and said valve for causing said
18 valve to operate when said control means receive a demand
19 signal.

1 11. The fixture of claim 10, wherein:
2 (a) means are operably associated with
3 said sensor means for allowing said sensor means to move
4 in response to and when engaged by said plunger and for
5 thereafter maintaining said sensor means in the position
6 to which it has been moved.

1 12. The fixture of claim 11, wherein:
2 (a) said allowing and maintaining means
3 includes an elastomeric member fixed relative to said
4 biasing means and slidably engaged with said sensor
5 means.

1 13. The fixture of claim 12, wherein:
2 (a) said sensor means is cylindrical, and
3 said member has an aperture through which said sensor
4 means extends.

1 14. The fixture of claim 12, wherein:
2 (a) said sensor means is one of an
3 inductive sensor and a reed switch.

1 15. The fixture of claim 13, wherein:
2 (a) said biasing means includes a helical
3 coil spring; and

4 (b) said sensor means extends through
5 said spring.

1 16. A self-calibrating push button,
2 comprising:

3 (a) a housing having a central chamber
4 and first and second spaced openings therein;

1 / 17. A push button of claim 16, wherein:

4 said openings for maintaining said biasing means within
5 said chamber.

1 18. The push button of claim 17, wherein:

2 (a) said permitting and maintaining means
3 is secured to said holding means.

1 19. The push button of claim 18, wherein:

2 (a) said permitting and maintaining means
3 includes an elastomeric member.

1 20. The push button of claim 18, wherein:

2 (a) said member is frustoconical, and has
3 a base proximate said other one of said openings and a
4 frustum extending therefrom.

1 21. The push button of claim 20, wherein:

2 (a) said sensor means is cylindrical and
3 is engaged by the frustum.

1 22. The push button of claim 21, wherein:

2 (a) said biasing means is a coil; and
3 (b) said sensor means extends coaxially
4 through said coil.

1 23. The push button of claim 20, wherein:
2 (a) means are operably associated with
3 the base of said member for fixing said member relative
4 to said holding means.

1 24. The push button of claim 21, wherein:
2 (a) said sensor means is one of an
3 inductive sensor and a reed switch.

1 25. The push button of claim 21, wherein:
2 (a) a flexible cord has a first end in
3 electrical connection with said sensor means and an
4 opposite end having a releasable connector for connection
5 with said control means.

1 26. A method of calibrating a push button
2 having a plunger, a spring operably associated with the
3 plunger for urging the plunger in a first direction, and
4 a sensor, the method comprising the steps of:
5 (a) moving the plunger in a second
6 direction opposite to the first direction and thereby
7 engaging the sensor and moving the sensor in the second
8 direction; and
9 (b) securing the sensor in the position
10 to which it was moved by the plunger.